Nature's Call

Raven

Crow

An Activity Newsletter for Kids by Utah's Project WILD--Spring/Summer 2001

Utah's Clever Crows and Company

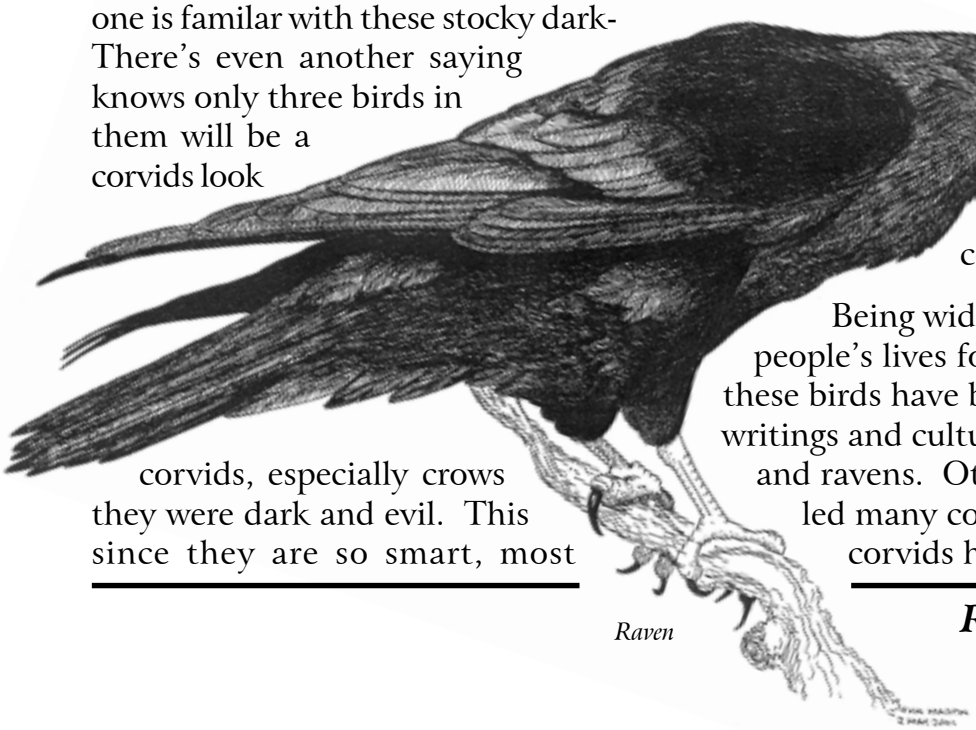
Back in the 1800s, someone once said that if men had wings and bore black feathers, few of them would be clever enough to be crows. The man who said this, knew, as did many other people, that crows are extra smart. Indeed crows and their relatives are the "bird brains" of the bird world. Crows and their relatives—ravens, magpies, nutcrackers and jays—all belong to a family of birds scientists call the *Corvidae*. Most people just call them corvids for short. Corvids belong to a group of birds called passerines, the songbirds. They may be smart, but those of you who have heard their harsh calls know they're not too musical.

Many fables and stories describing how smart crows are have been told. One famous fable tells how a thirsty crow was able to raise the level of some water in a narrow-necked pitcher. To make the water rise high enough for the crow to reach, the crow dropped a bunch of pebbles into the pitcher. This caused the water level to rise so the crow could take a drink. In another story, a crow pulled up a fishing line with its beak to get to the bait. It kept the line from sliding back into the fishing hole by standing on it with its foot. Some people have even taught crows to count and to speak words. Others have shown that crows can use tools, solve puzzles and have very good memories.

Even though people have heard a lot of stories about how smart crows and their relatives are, it's hard for scientists to actually prove they are smart. But scientists do know they all have extra-big brains compared to other birds. And compared to other animals, corvids would have brains as big as dolphins if they had the same sized bodies. Some scientists believe that corvids are probably as smart as monkeys.

The bigger brains that corvids have help them learn more easily. This makes them much better at dealing with changes in their environment. Because they are extra smart and can adjust to changes, corvids are able to live almost anywhere in the world. Across the globe, almost everyone is familar with these stocky dark-feathered birds with strong bills. There's even another saying that goes, "If a person knows only three birds in the world, one of them will be a crow." But not all corvids look like crows. Some, like jays, are bright blue and others are colored as beautifully as parrots.

Being widespread, corvids have been part of people's lives for a long time. Because of this, these birds have become part of many legends, writings and cultures. Some people have worshipped corvids, especially crows and ravens. Others have disliked them, believing they were dark and evil. This led many corvids to be killed over time. But since they are so smart, most corvids have been able to thrive.



Raven

Read on to learn more about Utah's Clever Corvids!

Calling All Corvids - The Science of Names

Imagine you are asked to go outside and count all the different living things you could find. You'd probably discover hundreds of plants and animals just in your neighborhood. World-wide scientists think there are at least 10 million different kinds of organisms on the earth!

Now, imagine you're asked to describe the each of the plants and animals you saw to someone else. You'd probably tell them how the plants and animals you saw looked and what they were doing. This is what scientists did back in the 1700s when they started to study the things living around them more closely. Back then, they used Latin as the language to discuss things scientifically. To tell one organism from another, they named it with a long series of Latin and sometimes Greek words. These long strings of words were called **polynomials** (in Latin, *poly* means "many" and *nominal* means "name").

In 1735 though, a Swedish botanist named Carl Von Linné came up with another system. He noticed that some of the plants and animals had shorter, two-part names called **binomials** (in Latin, *bi* means "two"). Finding this to be simpler, he started using only two words to name all the plants and animals he listed in his books. The first part of the name, the **genus**, was used to refer to a group of closely related plants or animals. The second part, the **species**, was the name given to only one kind of organism in the genus. For example, think of it sort of like your name, but with your last name written first. Your last name (same as the genus part) groups all the members of your family together, and your first name (species part) identifies you within your family.

Carl Von Linné liked his system so much he even "Latinized" his own name and became known as Carolus Linnaeus. Linnaeus' system of naming plants and animals became popular and biologists around the world began to use his "binomial nomenclature" system to name organisms. The two names together are now called the **scientific name**. When writing a scientific name, the genus is always capitalized, and the species is all in lower case. It is also written in italics or underlined because Latin is a foreign language. For example, the scientific name for humans is *Homo sapiens*. What's your name "Latinized"?

Using a scientific name to name each organism not only makes things simpler, it helps to avoid confusion. For example, most people know different plants or animals by a certain **common name** they were taught. But some plants and animals have several different common names, or nicknames that people use. Also, in different languages, the names for various plants and animals are different. To see what ravens, crows, magpies and jays are each called in different languages, look on the internet at www.shades-of-night.com/aviary/names.html. By using the genus and species naming system, everyone knows exactly which plant or animal someone is talking about.

To the right is some information about the different corvids found in Utah. With each bird is its common name. Using clues given in the information, discover which of the scientific names below belongs to which bird. Write it in the space after its common name.

Pica hudsonia
pica: magpie
pied: black and white
hudsonia: after Hudson

Nucifraga columbiana
nux or nuci: nut
frangere: to break
columbiana: of the Columbia (River)

Cyanocitta stelleri
kyanos(cyano): blue
kitta (citta): chattering
stelleri: after Steller

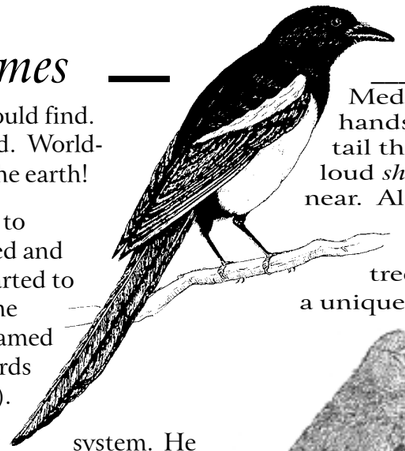
Perisorius canadensis
*perisoryein:*to heap up (store up)
canadensis: of Canada

Apheloecoma californica
apheles: smooth (without crest)
kome (coma): hair
californica: of California

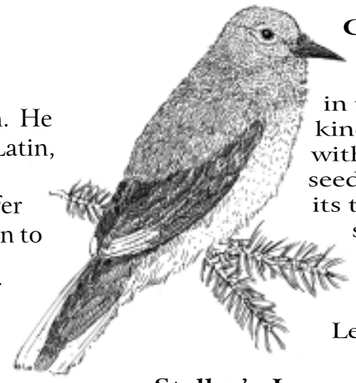
Corvus corax
corvus: raven
corax: croaker

Corvus brachyrhyncos
corvus: raven
brachy: short
rhynchos: beak

Gymnorhinus cyanocephalus
gymnos: naked
rhis: nose
kyanos(cyano): blue
kephale (cephalus): head

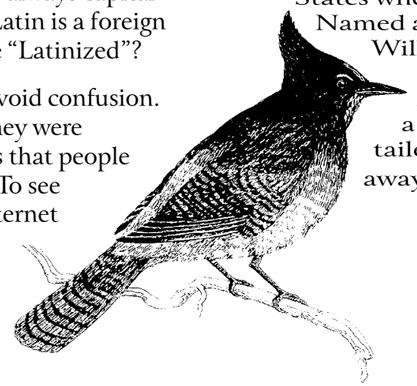


Black-billed Magpie:
_____ _____
Medium-sized corvid. Easliy recognized by its handsome black and white pattern and long flowing tail that shines blue and green in the sun. Makes a loud *shaak, shaak, shaaak* alarm call when danger is near. Alarm call attracts other magpies which, as a group, mob or attack predators like great-horned owls to drive them off. Places nest in trees along rivers. Builds a bulky stick nest with a unique dome made from thorny branches.

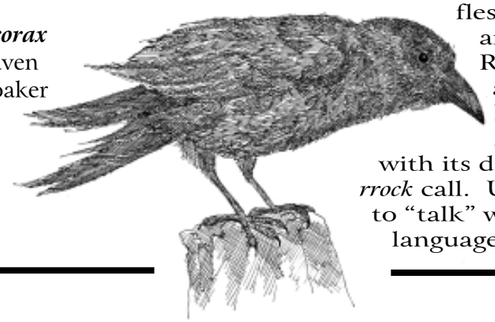


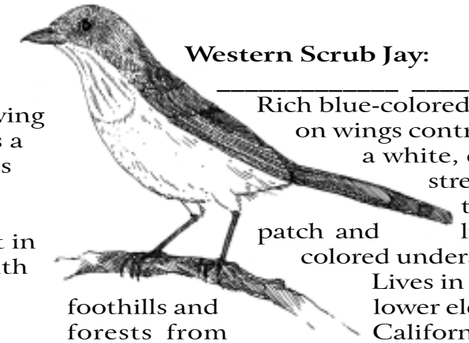
Clark's Nutcracker:
_____ _____
Gray and black-feathered bird. Lives in the mountains and feeds on many kinds of pine seeds. Cracks seeds open with its strong bill Can carry up to 90 seeds at a time in a special pouch below its tongue. Caches seeds on south-facing steep slopes sheltered from wind where little snow gathers in winter. Named after William Clark who discovered it along the Columbia River during the Lewis and Clark expedition in 1805.

Steller's Jay: _____ _____
Dark-blue and black jay with a punk-rocker like crest. Lives in the lower mountains of the Western United States where it feeds on insects and pine seeds. Named after German naturalist, Georg Wilhelm Steller who discovered it on an expedition exploring the coast of Alaska in 1741. Sometimes makes a call sounding like a squealing red-tailed hawk. Thought to help scare away predators.



Common Raven: _____ _____
Largest of the songbirds and largest of the corvids. Considered the smartest too. Covered with satiny iridescent black feathers. Has a stout, bill which is often used to feed on carrion, the flesh of dead animals. Ranges far and wide across much of the Northern Hemisphere. Most people familiar with its deep, croaking *rrock, rrock* call. Uses many calls though to "talk" with other ravens in a language of its own.





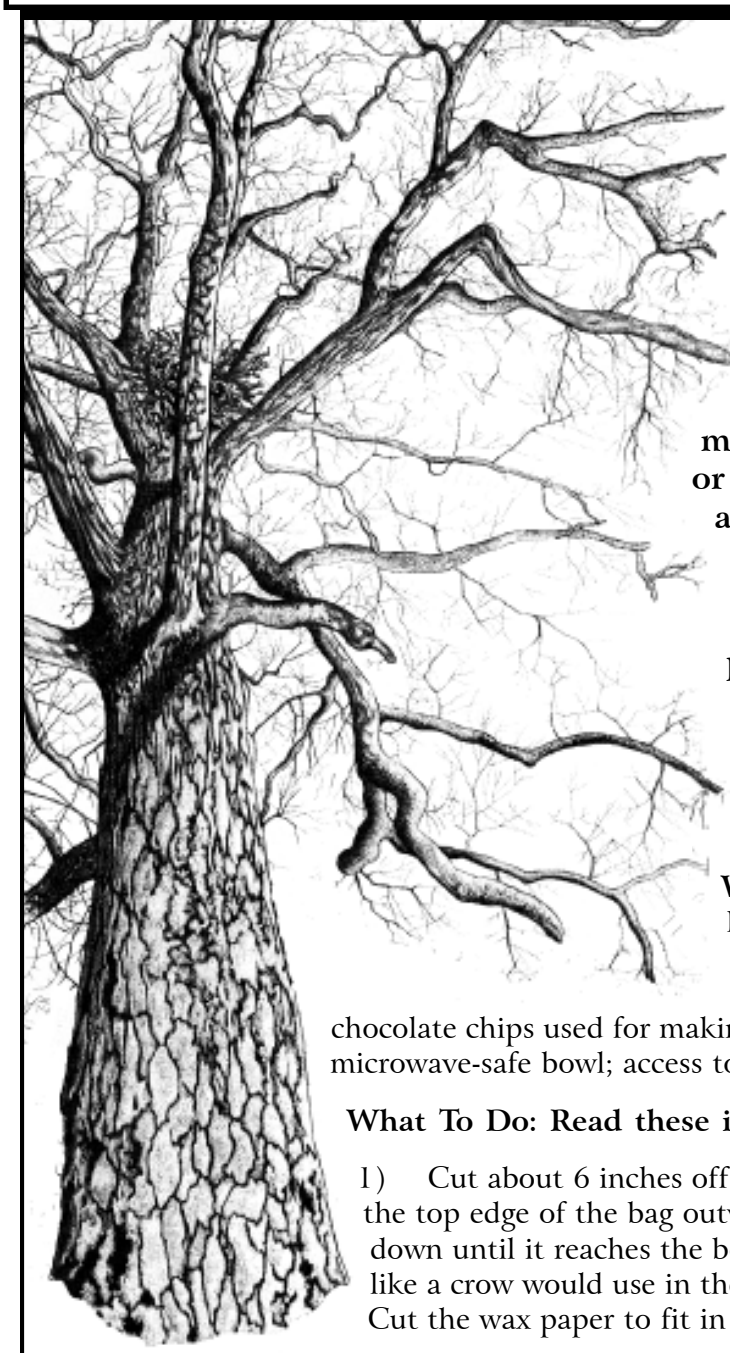
Western Scrub Jay:
_____ _____
Rich blue-colored feathers on wings contrast with a white, dark-streaked throat patch and lighter-colored underside. Lives in the foothills and lower elevation forests from California across the West. Feeds on seeds of pinyon and ponderosa pines. Can't carry more than one pine seed at a time, so does not store or cache seeds. Also feeds on fruits, insects, eggs and young of other birds.

Pinyon Jay:
_____ _____
Soft-blue feathered jay tied closely to pinyon pine woodlands of the West. Feeds mainly on the seeds of pinyon pines. Forages together in large flocks of a hundred or so jays. Its bill has no feathers covering the nasal openings as do most other corvids. Lets it pry open sticky unripe cones without getting messy.

Gray Jay: _____ _____
Gray, white and black-feathered jay. Lives across Canada and in the high mountains of the West in spruce and fir forests. Waits near campsites and picnic areas for handouts and to scavenge scraps. Very bold, sometimes feeds right from your hand or steals food off your plate. One nick-name is "camp robber." Stores up lots of food found in summer to eat in the cold of winter.

American Crow: _____ _____
Glossy black-feathered bird with short, but stout bill. Breeds coast to coast in North America but not a common breeder in Utah. Feeds on insects, grain, garbage and almost anything edible it can find. Also feeds on young corn shoots. Because of this, some farmers dislike crows and try using scarecrows to keep crows away. Other farmers have learned crows in fields actually help because crows eat insects that damage crops.

Crunchy Chocolaty Crow's Nest — *Animal Behavior*



Crows like to build their nests high in the tops of trees. They usually pick a spot at least 25 feet up and sometimes up to 75 feet up. In Utah, they nest in tall cottonwood trees along rivers. Their nests are usually well hidden but if you look hard you may find one. Looking up at the nest from below, it looks like a messy jumble of twigs, sticks and leaves. Nests measure about two feet across and eight or nine inches high. The jumble of sticks and leaves is held together with a layer of mud and plant fibers. Inside there is a deep bowl lined with soft grass, feathers, moss or even yarn. This lining forms a warm cup that holds the crow's 4-6 greenish or blue-greenish, brown-spotted eggs. In this activity, you can pretend to be a crow building a nest—a nest that later you can eat!

What You Need: One small brown paper lunch bag; scissors; a 4-inch square piece of wax paper, about a cup full of crunchy Chinese chow mein noodles; about 1/2 cup of chocolate chips used for making cookies; 4-6 greenish jelly beans; a spoon: a microwave-safe bowl; access to a microwave oven; paper towels to clean up.

What To Do: Read these instructions first before starting.

1) Cut about 6 inches off the top of the bag. Carefully roll the top edge of the bag outward all the way around and fold it down until it reaches the bottom of the bag. This forms a base like a crow would use in the crotch of a tree to support its nest. Cut the wax paper to fit in the base and put it inside the base.

2) Then like a crow, place noodles (sticks) in the crotch of the tree (inside the bottom of the folded bag) and build a nest. Its not that easy to weave the sticks together. Think how hard it is for a bird using only its bill and feet to lay sticks down and hold them in place. Remember to leave a bowl in the center of your nest.

3) Next, get an adult to help you melt the chocolate chips in the microwave. Let the melted chocolate cool down a little until it is as thick as mud. Then, carefully drizzle the melted chocolate over your noodle nest to help hold it together. This represents a crow using mud to cement its nest together.

4) Let the chocolate harden. Last put the jelly beans (pretend eggs) into the nest.

5) Now you have a crunchy chocolaty crow's nest that you can gobble up.